AUTOSTART

AS-4560/4563/4564/4565 - SH

Manual transmission remote starter & full featured alarm system.

INSTALLATION GUIDE

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NOTICE:

DUE TO THE POTENTIAL FOR DAMAGE TO THE VEHICLE, THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY ELECTRICAL DAMAGE TO THE VEHICLE OR TO THE UNIT THAT HAS CAUSED VEHICLE DAMAGE DUE TO IMPROPER INSTALLATION OF THE PRODUCT.
THIS UNIT MUST BE INSTALLED BY AN AUTHORIZED AUTOSTART TRAINED TECHNICIAN USING ALL SAFETY DEVICES SUPPLIED.
Please review the installation guide carefully before any work begins.

WARNING

THIS UNIT IS FOR MANUAL TRANSMISSION ONLY, BEFORE INSTALLING THE UNIT TEST THAT THE VEHICLES OEM DOOR SWITCH CONTACTS WORK WELL, AND THAT THE PARKING BRAKE SYSTEM OPERATES PROPERLLY.
DO NOT INSTALL ON CONVERTIBLE VEHICLES UNLESS A RADAR SENSOR IS USED TO DETECT MOTION IN THE VEHICLE.

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WHAT'S INCLUDED

Please review the installation guide before beginning the installation, particularly the wiring diagram and the list of programming options.
Prior to installation please be sure that all hardware components required to install the system are in the box.
The following is a list of components included in the Kit:

- 1 – Control unit
- 2 – Transmitters (Depends on model)
- Plug-in shock dual zone shock sensor
- Plug-in ultra bright L.E.D
- Plug-in valet switch
- High power 120db, 6 tone siren
- 1 - 5 Pin 14 AWG harness (Ignition harness)
- 1 - 7 Pin 18 AWG harness (Main harness)
- 1 - 11 Pin harness (Accessories)
- 1 Antenna (Link cable only with SH)
- 1 Parts Bag (hood switch, connector, wires, warning label)
- Installation Guide
- User guide, tech bulletins.

NOTICE:

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

INSTALLATION POINTS TO REMEMBER

- When working on a vehicle always leave a window open.
- Remove courtesy light fuse if possible to prevent battery drain.
- Never Install control unit where it could interfere with normal operation or obstruct service technicians.
- Do not disconnect the battery on vehicles equipped with air bags and anti-theft radios.
- Always use a grommet when running wires into the engine compartment. Never run wires through bare or sharp metal.
- Always solder and tape all connections.
- Never ground control unit to vehicle steering column.
- Make sure that vehicles OEM door switch contacts and parking brake system works properly.

FEATURES

- programmable high current second ignition / accessories / starter output
- plug in valet and L.E.D
- Smart-logic records last alarm state on power up.
- programmable factory horn / siren output
- 5 zone protection
- Smart-arm feature (system can arm virtually any factory alarm!)
- plug-in dual zone shock sensor
- Ultra bright L.E.D.
- Turbo Mode. (60 idle down)
- external trigger control
- pager ready
- 120db, small 6 tone siren
- selectable passive or active starter kill output
- Silent arm/disarm capable by remote.
- Siren panic mute, without disarming.
- dedicated arm / disarm outputs
- Auto zone 3 disarms with trunk release.
- electronic ultra secure valet switch
- diagnostics via parking light
- 12 volt parking light output
- dual 12 volt supply
- OEM alarm control
- negative door lock outputs
- ignition controlled door locks
- anti-theft starter kill output
- anti-grind feature
- negative trunk release output
- child safety mode
- code learning transmitter
- user controlled cold weather timer
- adjustable tach search and setting
- long range receiver (up to 1500 feet range. sh model only)
- programmable run time (5,15 or 25 minutes)
- programmable crank attempts
- programmable crank duration
- 2 YEAR LIMITED LIFE WARRANTY

OPTIONS

- Remote keyless entry
- Remote Trunk release
- Engine kill (Starter kill)
- OEM Horn control
- Super-Heterodyne antenna
- Multi-Car operation
- Pager ready

PROGRAMMABLE OPTIONS

- Door lock pulse duration (1 sec, 4 sec, or two ¼ sec unlock pulses).
- Programmable passive or active arming
- Silent Arming/disarming chirp control
- Programmable cold weather operation
- Ignition controlled door locks.
- Constant or pulsed Groundout when running.
- Run time (5,15, or 25 minutes)
- Maximum crank duration (6,8, or 12 seconds).
- Childproof operation.
- Gasoline or Diesel engine operation.

PROGRAMMING TRANSMITTERS

To use the transmitter with your alarm/starter system, you must first have the system **learn the transmitter's code.** The system can learn a total of 4 transmitters. If more than 4 transmitters are programmed, the oldest codes will be replaced.
(The same transmitter can be coded 4 times to lock out all other transmitters.)

NOTE: In order to program a new transmitter code, **Alarm Valet Mode must be disabled**. Also, when programming the transmitter, make sure that no other transmitter is in use or the alarm/starter unit may learn it.

1. Make sure that the **Alarm Valet Mode is disabled**.
2. Turn the ignition switch to ON
3. Open the hood
4. Turn the Valet switch ON, OFF, ON
5. The parking lights will come ON. You have up to 5 seconds to **press Button I on the transmitter** to be added to the unit, if the operation is successful, the alarm/starter unit will flash the parking lights 5 times quickly.

Note that the Alarm Valet Mode is enabled at the end of this procedure. You should disable it to return to normal operation. If the code could not be read by the unit, repeat the operation from step 1. If you cannot program the unit after several tries, there may be a problem with the transmitter or remote starter unit.

MULTI CAR OPERATION *(Only available on 4563 & 4564 & 4565)*

***To program transmitter to second vehicle for multi-car operation, you must press on the transmitters channel 3(trunk) in step 5 of transmitter code learning.**

(See above for Transmitter code learning)

The AS-4563/4564/4565 systems feature Multi-car operation.
This allows the owner of two Autostart systems in two of his/her vehicles to control both systems with one transmitter. (Both vehicles must be equipped with an AS-4563/4564/4565.
The remote transmitter of the primary vehicle can control the starter disable system, the door locks and the remote car starter operation of the second vehicle.
The remote transmitter of the second vehicle can also operate the primary vehicle

REMOTE STARTER & ALARM VALET MODES

The alarm/starter unit can be placed in **Remote Starter Valet Mode** to disable **the capability of starting the engine by the unit** while maintaining the alarm and door locking/unlocking functions. This is recommended if the vehicle is to be parked in a garage or if the vehicle needs to be serviced.

The alarm/starter unit can also be switched to **Alarm Valet Mode** to stop an alarm condition or to disable **the alarm functions** and the anti-theft starter kill feature. While in the Alarm Valet Mode, the remote starting capability, the panic mode and door locking/unlocking functions are still operational.

NOTE: Enabling Alarm Valet Mode is required if you want to **stop the initial alarm condition** that occurs when powering-up the system.

Using one of the next options will permit the user to place the alarm/starter **in any one of the following combinations** using the **single valet switch**:

- Normal operation
- Alarm valet mode only
- Starter valet mode only
- Alarm and starter valet modes

ENABLING ALARM VALET MODE

1. Make sure the ignition key is in the OFF position
2. Set the valet switch to OFF
3. Turn ignition ON
4. Set the valet switch to ON. At this point the **LED turns and stays ON** to indicate that the Alarm Valet Mode is enabled
5. Set the valet switch and ignition OFF

DISABLING ALARM VALET MODE

1. Make sure the ignition key is in the OFF position
2. Set the alarm valet switch to ON
3. Turn ignition ON
4. Set the alarm valet switch to OFF. At this point the **LED turns and stays OFF** to indicate that the Alarm Valet Mode is disabled.
5. Turn ignition OFF

ENABLING STARTER VALET MODE

1. Make sure you did set the alarm valet mode as you require.
2. Set the **valet switch ON**

DISABLING STARTER VALET MODE

1. Make sure you did set the alarm valet mode as you require
2. Set the **valet switch OFF**

The remote starter is now in normal operation

TRANSMITTER FUNCTION

Once programmed, the transmitter will be operational. (Hood must be closed)
The transmitter is depended on the module type.
*The STOP Button on AS-4565 has NO function.

NOTE: Pressing any button with the vehicle running, parking brake engaged and the doors closed, will put the unit into Ready Mode.

TACH ADJUSTMENTS

Autostart systems have two methods of fine tuning the tach signal that is generated from the vehicle, the first method is manual tach search and setting, and the second is automatic tach search and setting. Either method can be used, however an automatic search is recommended. **Tach adjustment procedures should be done every time a new unit is installed.** This is because the tach signal from some ignition systems can sometimes be too high or too low, thus causing failed starts under different temperatures.

The procedures for tach adjustment are as follows:

1. Hold hood switch down for 6 seconds
2. Release pinswitch (parking lights should come on)
3. With parking lights on, immediately push and release pinswitch again.
4. Parking lights will stay on for up to 20 seconds (if not repeat from step 1)
5. With lights on press Channel 3 (Trunk) of remote transmitter at the same time. (lights will flash 1 to 7 times)
6. Start the vehicle using the key.
7. If lights stay on, then you have selected an incorrect tach wire. *(relocate tach wire and start from step 1)* If lights go off then proceed to the next step.
8. Allow vehicle to reach regular engine idle speed, then press and release brakes. (parking lights will flash appropriate setting, from 1 to 7 flashes)
9. Press Channel 3 (Trunk) of remote transmitter, to save setting. (Parking lights will flash one long flash)

NOTE: A manual adjustment should only be done if the auto setting is not completing the crank cycle properly in cold weather.

MANUAL TACH SEARCH AND SETTING

1. Hold hood switch down for 6 seconds
2. Release pinswitch (parking lights should come on)
3. With parking lights on, immediately push and release pinswitch again.
4. Parking lights will stay on for 20 sec. (if not repeat from step 1)
5. Press Channel 3 (Trunk) of remote transmitter at the same time (lights will flash 1 to 7 times)
6. Now you can increase or decrease the tach setting, depending on your needs.
7. Channel 1(LOCK) will decrease the setting, and channel 2 (START) will increase the setting.
8. After proper setting has been reached, push Channel 3 (Trunk) to save setting. (parking lights should flash once long)

CUSTOM PROGRAMMING OPTIONS

Autostart systems are equipped with 2 custom programming menus that allow the user to custom fit the system according to the installation requirements.
These options are designed to help make interfacing with all vehicles possible.
To get into custom programming mode you must do the following:

1. Hold pin-switch down for 6 sec.
2. Release pins-witch (parking lights will come on)
3. Immediately push and release pins-witch once again. (parking lights will stay on for 20 sec.)

4. Press and hold brakes, and press 1 or 2 on remote transmitter. (***Button 1 for mode one, and Button 2 for mode two)*** (lights will flash once for mode 1 and twice for mode 2)

After you have entered into one of the two programming menus you can release the brake pedal. The unit will stay in programming mode until the hood pins-witch is pressed or the valet switch has been turned off. (*so take your time to make the proper selection)*

The menu will automatically start you at function one, once you choose from one of the three Options, you will automatically jump to the next function.

To select one of the three options press the appropriate transmitter button. (see below)

1. **Channel 1 (LOCK) = Option 1**
2. **Channel 2 (START) = Option 2**
3. **Channel 3 (TRUNK) = Option 3**

Once an option has been selected the parking lights will flash 1,2 or 3 times. (*Depending on option selected)*

CUSTOM OPTIONS

MODE 1 PROGRAMMING

Function 1: Ignition Lock, Door lock/unlock Toggled, Dual Lock Pulses

- Channel I* Ignition Lock Enabled
- Channel II Ignition Lock Disabled
- Channel III Ignition Lock Disabled &SecureLock enabled

Note: **Secure lock** adds a lock pulse 4 seconds after the module starts the engine and also 4 seconds after it stops the engine.

Function 2: Must Select default setting.

- Channel I* Enabled
- Channel II Enabled

Function 3: Arming/disarming Chirp

- Channel I* Chirp Enabled
- Channel II Chirp Disabled

Function 4: Passive/Active Arming

- Channel I* Passive Arming
- Channel II Active Arming

Function 5: Door Lock Pulse Time

- Channel I* ¾second Lock/Unlock pulse
- Channel II 4 second Lock/Unlock pulses
- Channel III 3/4second Lock pulse, and two 1/4second Unlock pulses.

Function 6: Siren / OEM Horn Mode

- Channel I* SirenMode Enabled
- Channel II SirenMode Enabled
- Channel III OEM Horn Mode

*** = Factory Default**

This conclude Mode 1 programming. To get a playback of these options, press and release the hood switch. The programming of these four functions (and those from Mode 2) will play back in sequence via the parking lights.

CUSTOM ENGINE OPTIONS MODE 2

This mode allows you to customize the alarm/remote starter's control of crank cycles, engine run time and diesel engine options.

Function 1: Engine Run Time

- Channel I 5 minutes
- Channel II* 15 minutes
- Channel III 25 minutes

Function 2: Crank Cycles

- Channel I 2 max.
- Channel II* 3 max.
- Channel III 4 max.

Function 3: Crank Time

- Channel I 6 seconds max.
- Channel II* 8 seconds max.
- Channel III 12 seconds max.

Function 4: Not Used

- Channel II* Disabled

Function 5: Engine Type

- Channel I Gasoline Engine
- Channel II* Gasoline Engine
- Channel III Diesel Engine

*** = Factory Default**

This conclude Mode 2 programming. See Mode 1 for playback options.

TACH WATCH LOCKOUT

Tach Watch lockout is a safety feature built into the remote starter to protect the vehicle's starter motor. If, during remote start, the vehicle's engine ever cranks the entire programmed crank time without detecting any tach pulses during the first crank cycle, the unit will go into tach watch lockout. The diagnostics for this is 3 quick parking light flashes when trying to remote start the vehicle.

If your module is in Tach Watch Lockout it is indicating that a problem exists with the tach signal it is receiving. Verify that the tach wire from the remote starter is properly connected to a good tach signal in the vehicle.

To remove the unit from Tach Watch Lockout you must do the following:

1. Close the hood
2. Disable starter kill (if installed)
3. Start the engine using the key.
4. Let it run for at least 25 seconds, then shut it off.
5. The module should now be out of Tach Watch Lockout.

NOTE: If module is still in Tach Watch Lockout move tach wire to a better tach source and perform an Automatic Tach Setting. Repeat steps 1 to 5.

DIESEL ENGINES

All systems are equipped with a dedicated "GLOW PLUG" input (pin #14).
This input must be wired to the "Wait to Start" light in the vehicle and must receive 12 volts for as long as the light is on. When this input is used a protection diode must be installed on the brake input.
Note: Diesel mode must be programmed for this to work.

SETTING THE UNIT INTO READY MODE

The unit does not come with channel 2 operational from the box.
What this means is that to remote start the vehicle you must first get the unit into **Ready Mode.**
To get into ready you must do the following:

1. Close all doors.
2. Make sure shifter is in neutral.
3. Start vehicle with the key.
4. Apply the Parking brake
5. Within 20sec. Push any button on transmitter (Lights will flash 3 times quickly, and stay on)
6. Remove the key vehicle will stay running.
7. Exit the vehicle and close the door.
8. Press and hold any button until the vehicle shuts down.

The vehicle will now be in ready mode, to start press button 2 on the transmitter.

REMAINING IN READY MODE

Once the vehicle is in Ready Mode you can start and stop the vehicle at will.
However, should any of the following occur the vehicle would come out of Ready Mode thus eliminating the remote start option until Ready Mode is restored.

1. Doors opened.
2. Hood opened.
3. Brakes pressed.
4. Parking brake disengaged.
5. Key turned to the on position.

Should any of the above occur, ready mode will be cancelled.

***NOTE: The unit will notify the user that it has exited Ready Mode by giving three slow flashes of the vehicles parking lights.**

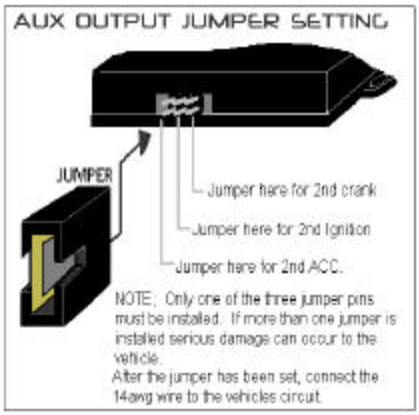
CLUTCH BYPASSING
Most manual transmission vehicles will require the clutch to be pressed in order for the vehicle to crank. This being true under remote start as well, so a clutch bypass must be performed.
A simple thing to look for when performing a bypass, is the make of vehicle you are working on, typically most domestic vehicles have a direct feed wire at the clutch switch, this means that the starter wire in the vehicle becomes continuous with +12volts when the clutch is pressed.
While import cars typically have a relay that is controlled with the clutch pedal. This means that when the clutch is pressed it will send a signal to a relay, allowing the vehicle to start.

PARKING BRAKE WIRE

The system has a parking brake input; this input is used as part of the Ready Mode sequence and must be connected. This input is supposed to be a ground. All vehicles are equipped with a parking brake, and all use a negative signal.
The easiest location to find this wire is at the parking brake housing, there will usually only be one wire coming of the housing thus eliminating the chance of error.

PROGRAMMABLE 5th RELAY

The 4500 series car starters are equipped with a high current, programmable 5th relay onboard that can be used to power a second ignition, accessory, or crank wire.
The programming is very simple, the unit uses a series of 3 jumpers, each jumper represents a function, in order to activate any one of the three possible 2nd outputs, you must place the jumper(supplied) on one of the three pins and simply connect the 14awg wire to the vehicles second ign/acc/crank wire.
NOTE: ONLY ONE OF THE THREE JUMPERS CAN BE USED AT ONE TIME.


AUX OUTPUT JUMPER SETTING
JUMPER
Jumper here for 2nd crank
Jumper here for 2nd Ignition
Jumper here for 2nd ACC.
NOTE: Only one of the three jumper pins must be installed. If more than one jumper is installed serious damage can occur to the vehicle.
After the jumper has been set, connect the 14awg wire to the vehicles circuit.

TURBO MODE

OEM recommends that any turbo equipped vehicle should idle down for a min. period of 60 sec after hard driving, to avoid the risk of turbo damage.
Most people today don't have the time to sit in their cars for 60 sec. To wait for their turbo's to cool, so the result in most cases is that the turbo vehicles are not let to idle.
Autostart has addressed this problem with the addition of Turbo Idle Down Mode.
This great feature will allow the user to place their manual vehicle into ready mode, exit the vehicle, hold the transmitter button for 4 sec., and walk away, it's that simple.
The system will automatically lock and arm the vehicle, but the engine will continue to run for 60 sec.
To enable Turbo Mode, do the following:
(1) See Setting up ready mode page.6
(2) Replace step 8, by holding the transmitter button for 4sec. Or until the parking light come back ON.

RESETING THE MODULE

The systems are equipped with a reset function that allows the installer to erase all transmitter codes and return all programmed options to factory default.
To reset the module:
1. Turn the valet switch "off".
2. Apply ground to pin # 12 (External Trigger).
3. Turn the Ignition "on".
4. Raise hood.
5. Press and hold brakes on.
6. Turn valet switch "on"
7. Lights should flash 8 times quickly.
8. Press transmitter button within 5 seconds to program transmitter.

- **See Custom Programming options for default settings.**

SOME COMMON QUESTIONS AND ANSWERS

The following are some commonly asked questions about our product, followed by possible answers.
Q: Does the parking brake wire have to be connected?
A*:* Yes the parking brake wire must absolutely be connected.
Q: Do both door trigger wires on have to be connected?
A: No, only one of the 2 trigger wires must be connected, or the unit will not enter ready mode.
(refer to wire guide for proper polarity)
Q: Unit gives me one long flash when getting into ready mode instead of three, and shuts off when key is removed.
A: The long flash indicates that there is a problem with the tach signal you are using. Locate another tach wire or perform an automatic tach learn.
Q: Can the vehicle start in gear?
A: No. Because the unit see the vehicle shut down by remote once the user has exited the vehicle. Knowing that the vehicle was running when it was exited indicates that the vehicle is in neutral.

DIAGNOSTICS - PARKING LIGHTS FLASH RATE

FLASHES	RATE	DESCRIPTION
1	Quick	Alarm system armed and doors locked or end of run time or run time canceled or trunk open or canceled cold weather or cannot start after maximum attempts of tries
2	Quick	Alarm disarmed and doors unlocked
3	Quick	Entering Cold Weather Mode or Tach watch lockout
4	Quick	The brake line went high and canceled cranking or run cycle
5	Quick	New transmitter learned
6	Quick	A remote start attempt was made with a tach or a vacuum signal detected
8	Quick	Unit Reset: Occurs when the unit is reset to factory default
10	Quick	The hood line went to ground during crank or run time
ON	4 sec.	The hood opened and the hood switch line went to ground. This is step one of the programming modes.
ON	5 sec.	The end stage of the procedure to program transmitters.
ON	20 sec.	If the hood switch is flashed (ground, open, ground), the unit went into step 1 of the programming cycle and no transmitter activity was detected for 20 seconds.
ERRATIC	-	If the unit flashes erratically (1 to 3 flashes, followed by a pause, then more flashes), it is in playback mode. This occurs when the hood switch line is flashed twice (ground, open, ground, open, ground).
CONSTANT FLASHES	Up to 60 sec.	The unit is in an alarm condition either created by an intrusion, by the panic mode or when the unit is powered-up.

HARNESS DESCRIPTION

HARNESS DESCRIPTION (5-PIN)

PIN #	COLOR	SIZE	CONNECT TO
A	RED (Battery)	14 AWG	**Constant + 12V source** (usually the largest wire) at key switch **(30 AMP in-line fuse must be added).**
B	YELLOW (Ignition)	14 AWG	Wire at key switch which has + 12V when key is in the **Ignition (ON) and crank (START) position.**
C	VIOLET (Starter)	14 AWG	Wire that has + 12V **only** when the key switch is in the **crank Position.** (Attach a wire coming from pin 87A of the Starter kill relay if this feature is used).
D	ORANGE (Brake)	14 AWG	Wire at key switch that has + 12V when the ignition key is in **Ignition and/or Accessories position only (not crank position).**
E	RED (Battery)	14 AWG	**Constant + 12V source** (usually the largest wire) at key switch **(30 AMP in-line fuse must be added).**

HARNESS DESCRIPTION (7-PIN)

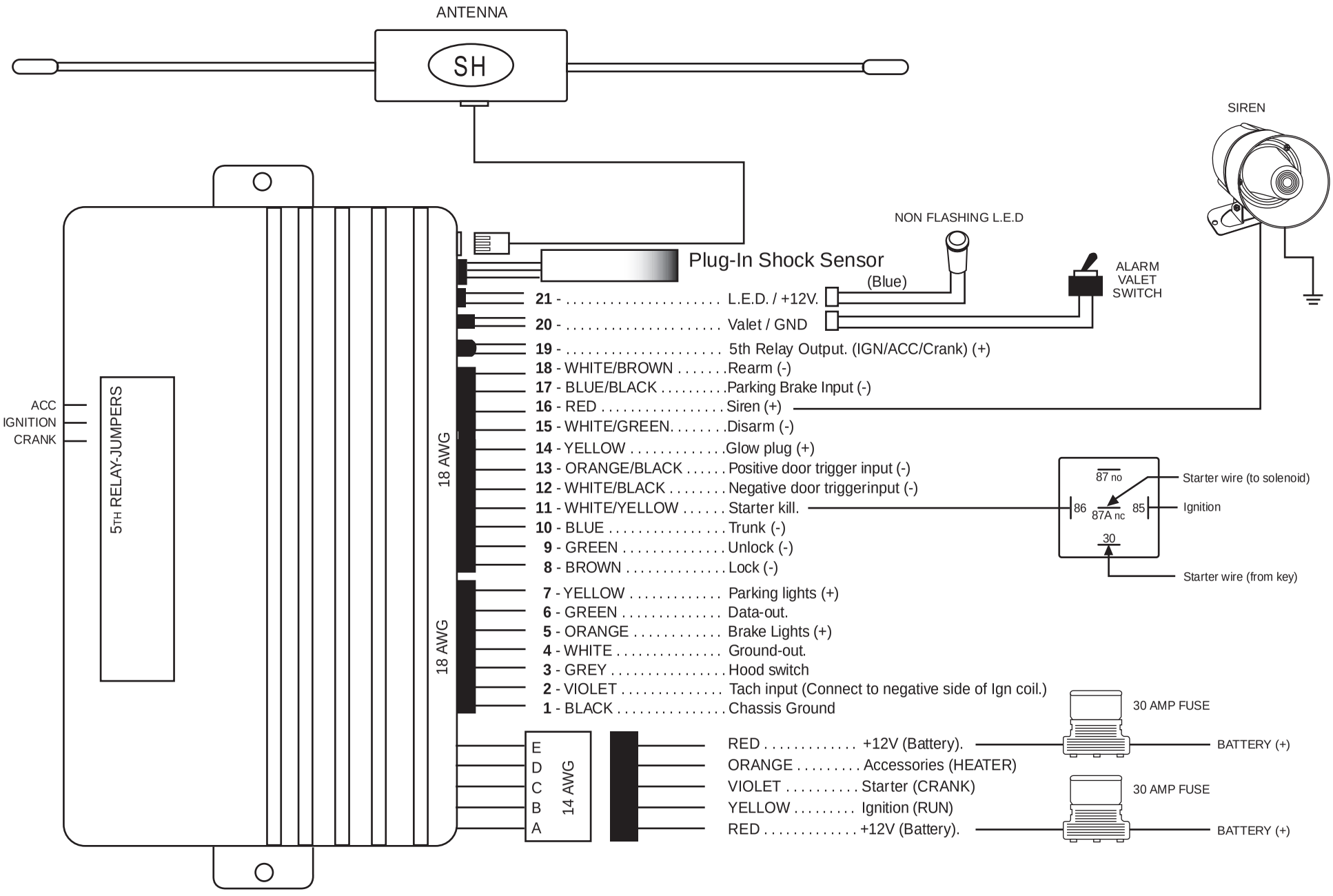
PIN #	COLOR	SIZE	CONNECT TO
1	Black (Ground)	18 AWG	Good solid ground, usually on the metal frame of the vehicle
2	Violet (Tach or Vacuum)	18 AWG	Negative (-) side of coil or tach wire of electronic distributor. If the vacuum mode is used instead, connect one side of a normally closed vacuum switch to this wire and the other side to + 12V side protected by the fuse.
3	Grey (Hood)	18 AWG	Hood switch connector. The body of the hood switch should be grounded to the vehicle via the mounting bracket.
4	White (Ground out)	18 AWG	Can be used for V.A.T.S., ignition sense disable. Sends a ground signal.
5	Orange (Brake)	18 AWG	Side of brake switch which has + 12V when brake pedal is pressed. (Ignition may have to be ON, depending on the vehicle)
6	Green	18 AWG	Data Out (Not used).
7	Yellow (Parking lights)	18 AWG	Parking light or switch wire that has + 12V. **When parking lights are ON**

HARNESS DESCRIPTION (11-PIN)

8	Brown (Lock)	18 AWG	On cars with **Negative Trigger** door lock systems, this wire can be attached directly to the wire that **locks** the doors when a ground is applied.
9	Green(Unlock)	18 AWG	On cars with **Negative Trigger** door lock systems, this wire can be attached directly to the wire that **unlocks** the doors when a ground is applied.
10	Blue (Trunk)	18 AWG	Pin 85 of a relay added for this feature. Sends a GROUND signal.
11	White/Yellow (Starter Kill)	18 AWG	Pin 85 of starter kill Relay (see diagram).
12	White/Black (-)Door Switch Input	18 AWG	Connect to the car circuit, usually the dome light circuit, **which gives a GROUND when a door is opened. (NOTE: Only one of the two door switch wires must be connected.)**
13	Orange/Black (+) Door Switch Input	18 AWG	Connect to the car circuit, usually the dome light circuit, **that gives +12V when a door is opened. (NOTE: Only one of the two door switch wires must be connected.)**
14	Yellow (Glow plug)	18 AWG	Used for diesel engines. Connect to (+) when ON side of the OEM glow-plug (Wait to start)
15	White/Green (Disarm)	18 AWG	Used to disarm factory alarm.
16	Red (Siren/Horn)	18 AWG	+ 12V siren output. Connect to the positive side of the siren. **When used with a factory horn, a relay is required to convert source to a ground signal.
17	Blue/Black (Parking Brake)	18 AWG	Connect to (-) OEM parking brake wire.
18	White/Brown (Rearm)	18 AWG	Used to rearm factory alarm.
19	AUX	14 AWG	(2^{nd} Ign/ACC/Crank) (+)
20	Valet		Plug in
21	Led		Plug in
22	Shock Sensor		Plug in

- NOTE: **Constant 12 volts wires must be connected to heaviest gauge 12 volt wires at ignition switch. When there are two constant 12 volt wires at ignition switch wires A and E must be separated (each to their own 12 volts source). When there is only one 12 volt source at ignition switch then and only then can they be connected together.**

AS-4560 / 4563 / 4564 / 4565 SH WIRING DESCRIPTION



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